

CLAIMS

What is claimed is:

5        1. A system for writing position information to a rotating medium, comprising:

            a rotatable medium capable of storing information written to the rotatable medium;

10        a write element capable of writing information to the rotatable medium; and

15        a control mechanism adapted to rotate the rotatable medium and position the write element relative to the rotatable medium, such that the write element can:

            write at least a portion of a first servo burst during a first pass

20        of a write element over a rotating medium;

            trim at least a portion of a first servo burst during a second pass of the write element;

            write at least a portion of a second servo burst during a third

25        pass of the write element if the first servo burst and second servo burst are used to define a track centerline; and

            write at least a portion of a second servo burst during the second pass of the write element if the first servo burst and second servo burst are used to define a track boundary line.

2. A system according to claim 1, wherein:

            the rotatable medium is selected from the group consisting of magnetic disks, optical disks, and laser-recordable disks.

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3. A system according to claim 1, wherein:

each of the first portion and second portion comprises a servo burst.

4. A system according to claim 1, further comprising:

5        a read element adapted to read the first servo burst and second servo burst on a subsequent pass over the rotatable medium.

5. A system according to claim 4, further comprising:

10        a read/write head containing the read element and the write element.

6. A system according to claim 5, further comprising:

read circuitry adapted to accept information from the read element and determine the position of the read/write head.

15        7. A system according to claim 1, wherein:

the write element is further capable of trimming a portion of the first servo burst such that the first servo burst has a width approximately equal to the width of a track of servo data.

20        8. A system according to claim 1, wherein:

the write element is further capable of writing the first and second servo bursts in a servo wedge on the rotatable storage medium.

9. A system according to claim 1, wherein:

25        the write element is further capable of trimming a edge of the first servo burst and writing an adjacent edge of the second servo burst in order to define the position of a centerline of a data track on the rotatable storage medium.

30        10. A system according to claim 1, wherein:

the write element writes at least a portion of the second servo burst

before trimming at least a portion of the first servo burst.

11. A system for writing position information to a rotating medium, comprising:

5           a rotatable medium capable of storing information written to the rotatable medium;

              a write element capable of writing information to the rotatable medium; and

10          a control mechanism adapted to rotate the rotatable medium and position the write element relative to the rotatable medium, such that the write element can:

15           write a plurality of servo tracks to a rotatable storage medium, wherein the position of each servo track is defined by an edge of a first servo burst and a complimentary edge of a second burst, and wherein the first servo burst is written in a first revolution of the rotatable storage medium, and the first burst is trimmed on a second revolution, the second servo burst also being written on the second revolution; and

20           write a plurality of data tracks to a rotatable storage medium, wherein the position of each data track is defined by an edge of a third servo burst and a complimentary edge of a fourth servo burst, and wherein the third servo burst is written in a third revolution of the rotatable storage medium, the third servo burst is trimmed in a fourth revolution, and the fourth servo burst is written in a fifth revolution.

25          12. A system for writing position information to a rotating medium, comprising:

              a rotatable medium capable of storing information written to the

- rotatable medium;
- a write element capable of writing information to the rotatable medium; and
- a control mechanism adapted to rotate the rotatable medium and
- 5 position the write element relative to the rotatable medium, such that the write element can:
- write at least a portion of a first burst pattern during a first pass of a write element over a rotating medium;
- trim at least a portion of a first burst pattern during a second
- 10 pass of the write element;
- write at least a portion of a second burst pattern during a third pass of the write element if the first burst pattern and second burst pattern are used to define a track centerline; and
- 15 write at least a portion of a second burst pattern during the second pass of the write element if the first burst pattern and second burst pattern are used to define a track boundary line.
- 20 13. A system for writing position information to a magnetic hard disk, comprising:
- a magnetic hard disk of storing information written to the magnetic hard disk;
- a read/write head capable of writing information to the magnetic
- 25 hard disk; and
- a control mechanism adapted to rotate the magnetic hard disk and position the read/write head relative to the magnetic hard disk, such that the read/write head can:
- write a first servo burst during a first pass of a read/write
- 30 head over a magnetic hard disk;
- trim the first servo burst during a second pass of the

- read/write head, the first servo burst being trimmed so as to have a trimmed edge in about a predetermined position on the magnetic disk;
- 5 write a second servo burst during the second pass of the read/write head if the first servo burst and second servo burst are used to define a track boundary; and
- 10 write a second servo burst during a third pass of the read/write head if the first servo burst and second servo burst are used to define a track centerline, wherein the trimmed edge of the first servo burst and an adjacent edge of the second servo burst define a position that can be used to adjust the radial location over the disk of the read/write head during subsequent passes over those bursts.
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14. A system for writing position information to a magnetic hard disk, comprising:
- means for writing a first servo burst during a first pass of a read/write head over a magnetic hard disk;
- 20 means for trimming the first servo burst during a second pass of the read/write head, the first servo burst being trimmed so as to have a trimmed edge in about a predetermined position on the magnetic disk;
- 25 means for writing a second servo burst during the second pass of the read/write head if the first servo burst and second servo burst are used to define a track boundary; and
- means for writing a second servo burst during a third pass of the read/write head if the first servo burst and second servo burst are used to define a track centerline.